

March 19, 2003

RE: Hammond Water Filtration Plant 089-17147-00480

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision - Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures

March 19, 2003

Mr. Dick Mercer
Hammond Water Filtration Plant
6505 Columbia Avenue
Hammond, Indiana 46320

Re: Exempt Construction and Operation Status,
089-17147-00480

Dear Mr. Mercer:

The application from Hammond Water Filtration Plant, received on January 22, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that your 2922 horsepower (2000KW) diesel fueled emergency generator engine with ignition timing retard, to be located at 6505 Columbia Avenue, Hammond, Indiana 46320, is classified as exempt from air pollution permit requirements:

The following conditions shall be applicable:

- 1) The maximum hours of operation of the emergency generator shall not exceed 500 hours for any consecutive 12 month period.
- (2) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

WVH

cc: File - Lake County
Lake County Health Department
Air Compliance - Rick Massoels
Northwest Regional Office
Permit Tracking
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak
Hammond Department of Environmental Management
Patrick Clifford, CTE Engineers,
303 East Wacker Drive, Suite 600,
Chicago, Illinois 60601

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Exemption

Source Background and Description

Source Name: Hammond Water Filtration Plant
Source Location: 6505 Columbia Avenue, Hammond, Indiana 46320
County: Lake
SIC Code: 3621
Operation Permit No.: 089-17147-00480
Permit Reviewer: Walter Habeeb

The Office of Air Quality (OAQ) has reviewed an application from Hammond Water Filtration Plant relating to the construction and operation of a 2922 horsepower (2000KW) diesel fueled emergency generator engine.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission unit:

- (a) One (1) 2922 horsepower (2000KW) diesel fueled emergency generator engine with ignition timing retard. The maximum hours of operation of the emergency generator shall not exceed 500 hours for any consecutive 12 month period.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 22, 2003, with additional information received on February 19, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, page 1 of 1)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.5
PM-10	-
SO ₂	5.9
VOC	0.5
CO	4.0
NO _x	9.5

(c) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	non-attainment(moderate)
SO ₂	non-attainment(primary)
NO ₂	attainment
Ozone	non-attainment (severe)
CO	attainment
Lead	attainment

- (a) Lake County has been classified as attainment for NO_x. Therefore, NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Lake County has been classified as nonattainment for PM₁₀ and SO₂. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.5
PM10	-
SO ₂	5.9
VOC	0.5
CO	4.0
NO _x	9.5
Single HAP	-
Combination HAPs	-

- (a) This new source is not a major stationary source because no nonattainment pollutant is emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.
- (b) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or more. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Lake County and the potential to emit VOC and NO_x is less than ten (10) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM10 is less than one-hundred (100) tons per year including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

Conclusion

The construction and operation of this 2922 horsepower (2000KW) diesel fueled emergency generator engine with ignition timing retard shall be subject to the conditions of the attached proposed Exempt Construction and Operating Permit 089-17147-00480.

Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (>600 HP)

Page 1 of 1 TSD App A

Company Name: Hammond Water Filtration Plant
Address City IN Zip: 6505 Columbia Avenue, Hammond, IN 46320
CP#: CP 089-17147
Plt ID: CP 089-00480
Reviewer: Walter Habeeb
Date: February 14, 2003

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity
MM Btu/hr

S= = WEIGHT % SULFUR

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.1	0.0573	0.0 (1.01S)	0.0 **see below	0.1	0.85
Potential Emission in tons/yr	0.0	0.0	0.0	0.0	0.0	0.0

**NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

B. Emissions calculated based on output rating (hp)

Heat Input Capacity
Horsepower (hp)

Potential Throughput
hp-hr/yr

S= = WEIGHT % SULFUR

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.0007	not provided	0.0081 (.00809S)	0.013 **see below	0.00071	0.00550
Potential Emission in tons/yr	0.5	0.0	5.9	9.5	0.5	4.0

**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Note that the PM10 emission factor in lb/hp-hr is not provided in the Supplement B update of AP-42.

An average conversion factor of 1hp-hr = 7,000Btu is provided below.

Methodology

Potential Throughput (hp-hr/yr) = hp * 8760 hr/yr

Emission Factors are from AP 42 (Supplement B 10/96)Table 3.4-1 and Table 3.4-2

1 hp-hr = 7000 Btu, AP42 (Supplement B 10/96), Table 3.3-1, Footnote a.

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

*No information was given regarding which method was used to determine the PM emission factor or whether condensable PM is included. The PM10 emission factor is filterable and condensable PM10 combined.

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Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

updated 4/99